ASSESSMENT 1 - Septic System Design and Location

Both the septic tank and drainfield should have adequate capacity to treat all the wastewater generated in your house, even at times of peak use. The system must be designed for the maximum occupancy of your home. Water use in your household in excess of the system's design capacity leads to inadequate wastewater treatment or system failure. Conserving water or more frequent pumping may extend the life of the system.

The addition of a bathroom, bedroom, or water-using appliance (Jacuzzi, dishwater, food disposal, or water softener) to your home may require expanding your system.

Septic systems should last 15 to 40 years, depending on how well they were designed, installed and/or maintained. Effluent filters, gas baffles and safety alarms can extend the life of your septic system and drainfield, as well as preventing waste from flooding back into your home.

To prevent contamination of water supplies, the drainfield must be at least 100 feet from a surface water or groundwater source.

Use the assessment table to rate your risks related to septic system design and location. Your goal is to lower the risks.

	LOW RISK	MEDIUM RISK	HIGH RISK	YOUR RISK
Capacity of system	Tank is designed to handle more wastewater than required, based on the size of the home.	Capacity just meets load requirements, but I watch out for factors indicating system overload. Water conservation measures are taken.	Bathrooms, bedrooms, or water-using appliances are added without reexamining the capacity of the wastewater system.	❒ Low ❒ Medium ❒ High
Age of system of holding tank **YEAR INSTALLED:** _____	System is five years old or less.	System is between six and twenty years old.	System is more than twenty years old.	❒ Low ❒ Medium ❒ High
Effluent filter	An effluent filter is installed and cleaned regularly.	An effluent filter is installed but not cleaned often enough.	There is no effluent filter installed on the septic tank outlet.	❒ Low ❒ Medium ❒ High
Safety devices	An alarm on the pumping chamber or holding tank indicates that the tank is full or power has been cut off to the pump.		There is no alarm to indicate tank overflow or that power has been cut off to the pump.	❒ Low ❒ High
Backflow protection	A backflow valve is installed to prevent backup during floods.		No backflow valve is installed to prevent backup during floods.	❒ Low ❒ High
Separation distance	Drainfield is at least 100 feet from any well or surface water.	Drainfield is between 50 and 100 feet from a well or surface water.	Drainfield is less than 50 feet from a well or surface water.	❒ Low ❒ Medium ❒ High

Water usage in the United States ranges from 50 to 100 gallons per day (gpd) per person. Estimate the wastewater load from your household using the equations to the right. Your septic tank should be able to hold two days' worth of

IS YOUR SEPTIC TANK CAPACITY ADEQUATE?

_____ people in household x 75 gpd (average) = _____ gallons.
_____ gpd x 2 days = _____ gallons.

What is your septic tank capacity? _____ gallons. (If you don't know, ask your tank installer or pumper.)

Is your tank size adequate for the present household size? _____ Yes _____ No

Calculate the wastewater load from your home if each bedroom were occupied by two people:
_____ bedrooms x 150 gpd = _____ x 2 days = _____ total gallons.

This is the recommended tank size for your home.

This information was provided by Barbara Kneen Avery, Extension Associate, College of Human Ecology, Cornell Cooperative Extension in ccoperation with the University of Rhode Island Cooperative Extension and the Rhode Island Home *A*Syst Program. For more information on your Individual Septic Disposal System, contact the RI DEM / Office of Water Resources / Permitting Section at 235 Promenade Street, Providence, RI 02908-5767 or 401-277-4700.